KULIKOV, K.A., doktor fiz.-matem. nauk, prof., nauchn. red.;
SHUSTOVA, I.B., red.

[The universe around us] Vselennaia vokrug nas. Moskva, Znanie, 1965. 151 p. (Narodnyi universitet: Estestvenno-nauchnyi fakul'tet, no.12) (MIRA 18:12)

SHUSTOVA, I. F.

"Changes in the Cardiovascular System in Dysentery."
Leningrad State Pediatric Medical Inst, Chair of Infectious Diseases in Adults and Chair of Therapeutics, Leningrad, 1955. (Dissertation for the Degree of Medical Sciences)

SO: M-955, 16 Feb 56

SHUSTOVA, I.F., assistent; VITKOVSKAYA, M.E., ordinatory BOBOMOLOVA, N.N., vrach gorodskoy epidstantsii

Further observations on the treatment of dysentery in adults with furacilin and late results of an epidemiological investigation. Sbor. trud. Kursk. gos. med. inst. no.13:216-218 '58. (MIRA 14:3)

1. Iz kliniki infektsionnykh bolezney (zav. - dotsent M.Ye. Gal'perin) Kurskogo gosudarstvennogo meditsinskogo instituta.
(DYSENTERY) (FURACILIN)

SHUSTOVA, K. (Astrakhan')

"Pedagogical lectures" in Astrakhan Province. Mat.v shkole no.1: 82-83 Ja-F '56. (MLRA 9:4)
(Astrakhan Province--Mathematics--Study and teaching)

SHUSTOVA, K.I. (Astrakhan')

Lessons for the analysis of tests. Mat.v shkole no.6:44-45 N-D '57
(MIRA 10:11)
(Mathematics--Study and teaching)

SHUSTOVA, K.S.

Study of the effect of antibiotics of the tetracycline series on the capacity of E. coli to synthesize vitamin B_{12}. Mikrobiol. zhur. 26 no.5:57-60 '64. (MIRA 18:7)

1. Khar'kovskiy meditsinskiy institut.

L 54037-65 EWT(1) GS/GW
ACCESSION NR: AT5010233 UR/0000/64/000/000/0112/0118

14
B+1

AUTHOR: Shustova, L. N.

TITLE: Determination of the external orientation elements Alpha and Omega using the Santoni solar periscope

SOURCE: USSR. Gosudarstvennyy geologicheskiy komitet. Laboratoriya aerometodov. Spetsial'nyye voprosy fotogrammetrii (Special problems in photogrammetry). Moscow, Izd-vo Nauka, 1964, 112-118

TOPIC TAGS: strip set external orientation, solar goniometer, solar periscope, solar goniometer angle, photogrammetry, aerial surveying

17

ABSTRACT: In 1960, during a search for new power transmission line routes, the Laboratoriya aerometodov (Laboratory for Aerial Methods) carried out aerial surveying using the Santoni solar periscope. The camera of this periscope was rigidly connected with an AFA camera in such a way that the sun was photographed simultaneously with each aerial exposure. An appropriate processing of the pictures yielded the longitudinal $\varkappa$ and transverse ω inclination of the frame. The film processing was carried out with the Santoni solar goniometer, while the $\varkappa$ and ω angles were extracted by means of a solar calculator. The present paper outlines the method for the determination of angles $\varkappa$ and ω by means of the

Card 1/2

L 54037-65

ACCESSION NR: AT5010233

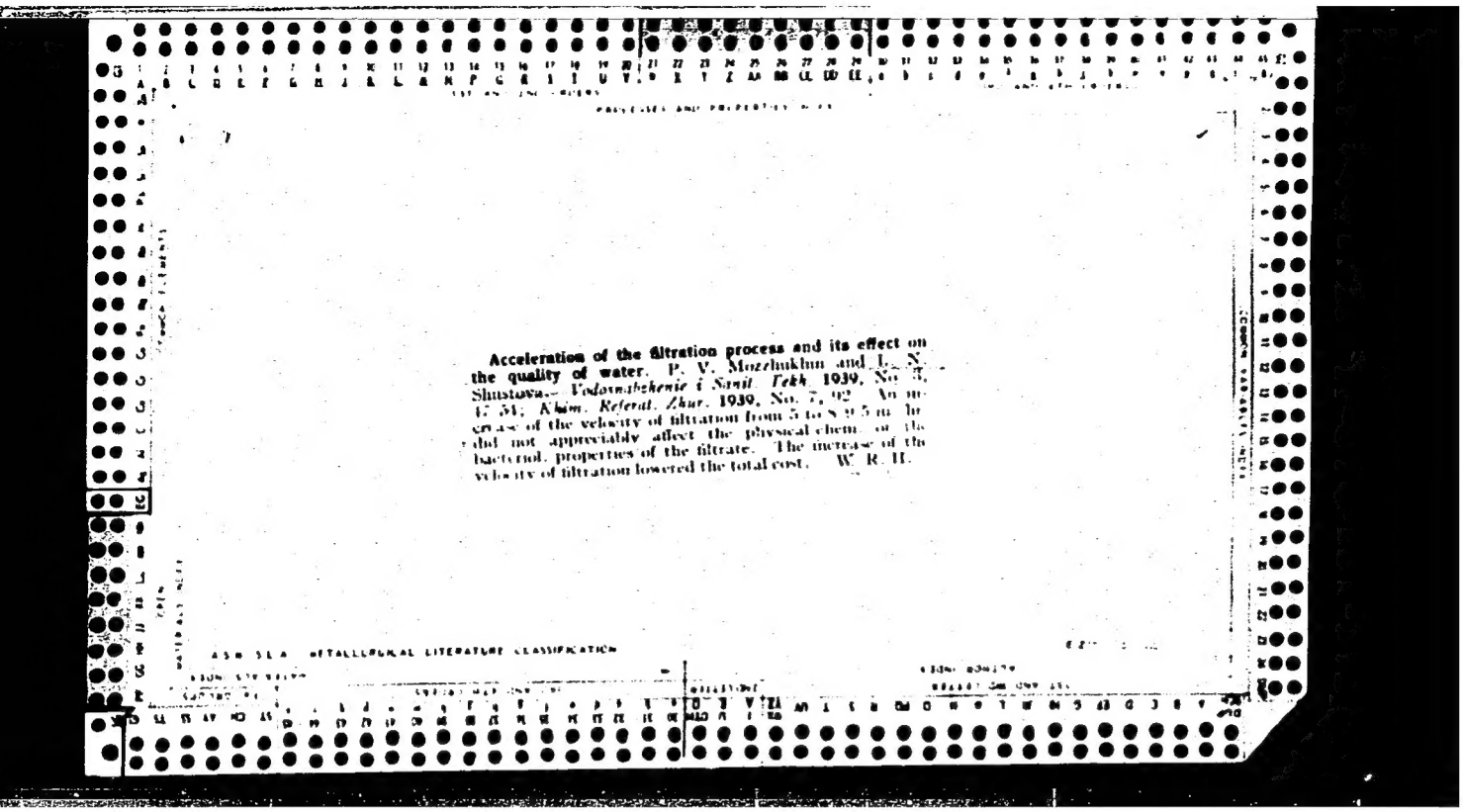
solar periscope in considerable detail. Errors in mutual orientation obtained by differences of pairwise measurements were within ±3.0'. Orig. art. has: 12 formulas, 6 figures, and 4 tables.

ASSOCIATION: None

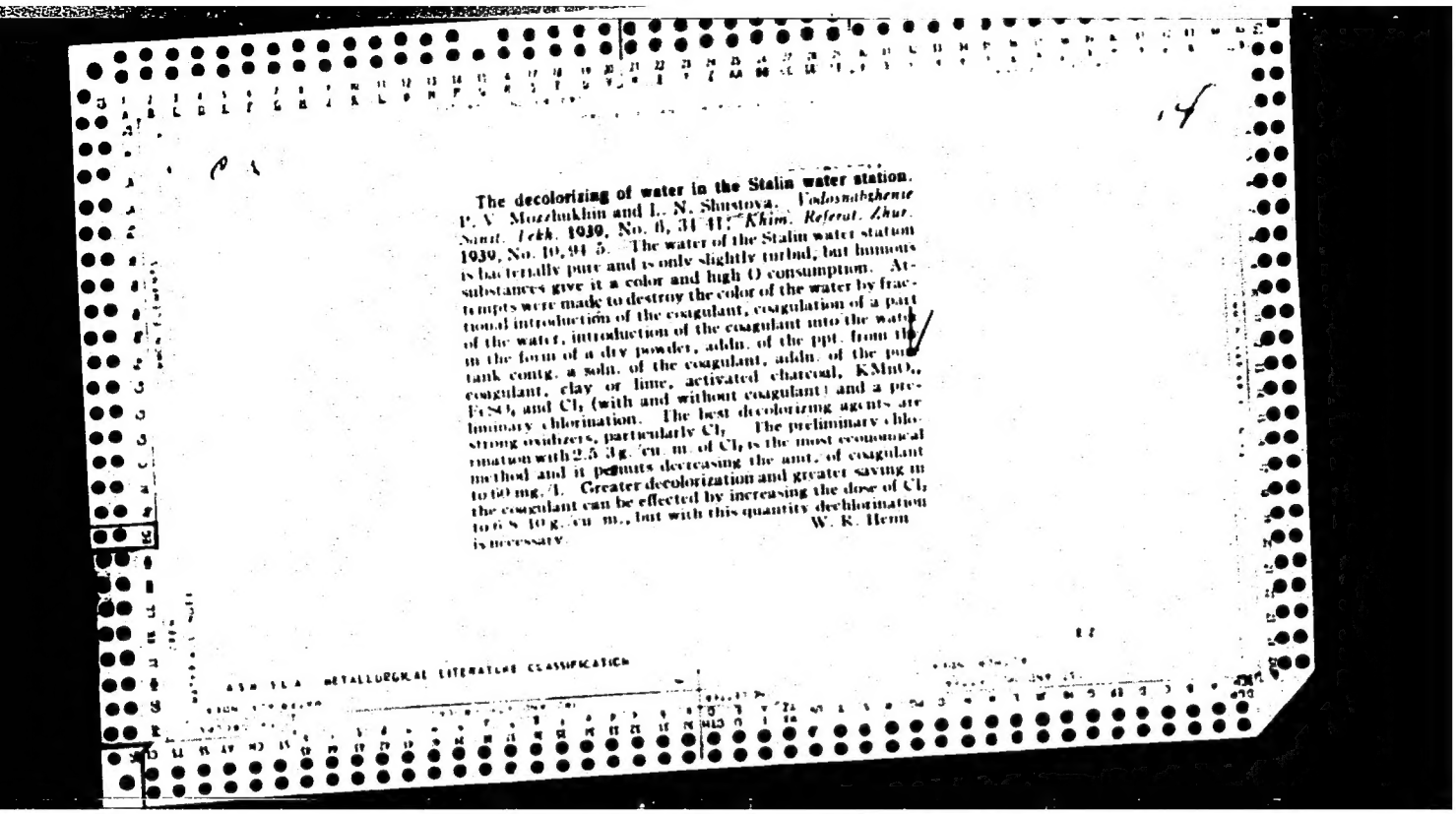
SUBMITTED: 17Oct64 ENCL: 00 SUB CODE: ES

NO REF SOV: 000 OTHER: 000

Card 2/2



Acceleration of the filtration process and its effect on the quality of water. P. V. Mozzhukhin and L. N. Shustova.— *Vodosnabzhenie i Sanit. Tekh.* 1939, No. 7, 12–15; *Khim. Referat. Zhur.* 1939, No. 7, 92. An increase of the velocity of filtration from 5 to 8–9.5 m. hr. did not appreciably affect the physical-chem. or the bacterial properties of the filtrate. The increase of the velocity of filtration lowered the total cost. W. R. H.



The decolorizing of water in the Stalin water station. P. V. Mozzhukhin and L. N. Shustova. *Vodosnabzhenie Sanit. Tekh.* **1939**, No. 6, 31-41; *Khim. Referat. Zhur.* **1939**, No. 10, 91-5. The water of the Stalin water station is bacterially pure and is only slightly turbid, but humous substances give it a color and high O consumption. Attempts were made to destroy the color of the water by fractional introduction of the coagulant, coagulation of a part of the water, introduction of the coagulant into the water in the form of a dry powder, addn. of the ppt. from the tank contg. a soln. of the coagulant, addn. of the pure coagulant, clay or lime, activated charcoal, $KMnO_4$, $FeSO_4$ and Cl_2 (with and without coagulant) and a preliminary chlorination. The best decolorizing agents are strong oxidizers, particularly Cl_2. The preliminary chlorination with 2.5 3 g./cu. m. of Cl_2 is the most economical method and it permits decreasing the amt. of coagulant to 50 mg./l. Greater decolorization and greater saving in the coagulant can be effected by increasing the dose of Cl_2 to 6 8 10 g./cu. m., but with this quantity dechlorination is necessary.

W. K. Henn

ASM SLA METALLURGICAL LITERATURE CLASSIFICATION

GAMOVA-KAYUKOVA, N. I.; SHUSTOVA, L. N.

Determination of stafilococci in food products. Gig. sanit. Moskva. no.9:33-36 Sept. 1950. (CLML 20:1)

1. Of the Central Sanitary-Hygienic Laboratory, Moscow.

PETROVICH, S.L.; SHUSTOVA, L.N.

Microflora of watermelons. Gig.sanit.,Moskva no.3:41-44 Mar 1951. (CLML 20:7)

1. Of the Laboratory of the Sanitary Epidemiological Station, Moscow.

SHUSTOVA, L.N.

SHUSTOVA, L.N.; LETROVICH, S.L.

Unification of the registration of coli bacilli in sanitation and bacteriological examinations of food products. Gig.i san. no.5:32-35 My '54. (MLRA 7:5)

1. Iz Moskovskoy gorodskoy sanitarno-epidemiologicheskoy stantsii.
(Escherichia coli)(Food—Bacteriology)

SHUSTOVA, L N

AID P - 3902

Subject : USSR/Medicine

Card 1/2 Pub. 37 - 6/21

Authors : Shustova, L. N. and S. L. Petrovich

Title : Methods of sanitary and bacteriological investigations of drinking water

Periodical : Gig. i. san., 12, 23-26, D 1955

Abstract : Discusses the All-Union State Standard for specifications of quality of drinking water, issued May 1, 1954. This GOST 2874-54 is considerably changed when compared with the preceding GOST 2874-45, but presents the same methods of bacteriological water analysis as GOST 5216-50, four years its senior. The author recommends reviewing the standard methods of water analysis taking into consideration modern scientific literature and practical observations.

USSR/Microbiology, Sanitary Microbiology. Sanitary Microbiology of Food Products. f-3

Abs Jour : Ref Zhur - Biol., No 14, 1958, No 62359

Author : Shusteva L.N., Petrevich S.L.
Inst : Moscow Scientific Research Institute of Sanitation and Hygiene
Title : On the Method of Sanitary Bacteriological Research in Milk and Milk Products

Orig Pub : Inform. byul. Mosk. n.-i in-t sanitarii i gigiyeny, 1957, No 9, 39-42

Abstract : No abstract

Card : 1/1

IZRAIL'SKIY, V.P., prof., doktor biolog.nauk; SHUSTOVA, L.N., kand.med. nauk; GOHLZNKO, M.V., doktor biolog.nauk; MURAV'YEV, V.P.; BEREZOVA, Ye.F., doktor biolog.nauk; SUDAKOVA, L.V., mikrobiolog; GRUSHEVOY, S.Ye., doktor sel'skokhoz.nauk; NEMLIYENKO, F.Ye., doktor biolog.nauk; BEL'TYUKOVA, K.I., doktor biolog.nauk; STARYGINA, L.P., kand.biolog.nauk; PERSHINA, Z.G., kand.biolog.nauk; ART'YEM'YEVA, Z.S., mikrobiolog; NOVIKOVA, N.S., kand.biolog.nauk; OSNITSKAYA, Ye.A., fitopatolog; YASHNOVA, N.V., fitopatolog-mikrobiolog; MIKZABEK'YAN, R.O., kand.biolog.nauk; TETYUREVA, I.V., red.; PEVZNER, V.I., tekhn.red.

[Bacterial diseases of plants] Bakterial'nye bolezni rastenii. Izd.2., perer. i dop. Moskva, Gos.izd-vo selkhoz.lit-ry, 1960. 467 p. (MIRA 13:7)

1. Chlen-korrespondent Ukrainskoy AN (for Murav'yev).
(Bacteria, Phytopathogenic) (Plant diseases)

L 54035-65 EWT(1)/FS(v)-3/EWG(v)/FSS-2 Po-4/Pe-5/Pq-4/Pae-2/P1-4
TT/GS/GW

ACCESSION NR: AT5010231 UR/0000/64/000/000/0031/0036

48
B+1

AUTHOR: Shustova, L. N.

TITLE: The trajectory of the trace of the intersection between the optical axis and the surface of a celestial body

SOURCE: USSR. Gosudarstvennyy geologicheskiy komitet. Laboratoriya aerometodov. Spetsial'nyye voprosy fotogrammetrii (Special problems in photogrammetry). Moscow, Izd-vo Nauka, 1964, 31-36

TOPIC TAGS: optical axis, satellite photography, satellite camera inclination, weather satellite, satellite optics, satellite orientation

ABSTRACT: Depending on the orientation of the optical axis of a narrow-angle camera, a satellite may photograph different regions of a celestial body from otherwise identical orbits. Such a circumstance may partially explain the change in optical axis during proposed picture-taking from the Nimbus weather satellites as compared with the Tiros satellites (K. Ya. Kondrat'yev, Meteorologicheskiye sputniki, Gidrometeoizdat, M., 1963). Consequently, the determination of the trajectories of the trace of the intersections between optical axes and the surface of celestial bodies is of considerable interest. The author solves the problem by assuming that the orientation of the optical axis coincides ideally with a given

Card 1/2

L 54035-65
ACCESSION NR: AT5010231 O

direction. He considers three possible cases in which the optical axis is aligned 1) along a line between the sun and the celestial object, 2) perpendicular to the surface of the celestial object, and 3) towards the brightness center of the visible disk. Orig. art. has: 13 formulas and 3 figures.

ASSOCIATION: None

SUBMITTED: 17Oct64 ENCL: 00 SUB CODE: OP, SV

NO REF SOV: 004 OTHER: 000

Card 2/2

SHUSTOVA, L.Ye.

Density of rocks in the northeastern part of the Baltic Crystalline Shield. Geofiz.razv. no.13:72-81 '63. (MIRA 17:4)

TSIRUL'NIKOVA, I.Ya.; SHUSTOVA, L.Ye.; POROTOVA, G.A.

Deep-seated formations in the Pechenga structural zone according to geophysical data. Zap. LGI 46 no.2:14-16 '63. (MIRA 17:6)

SHUSTOVA, L.Ye.

The Bothnia-Kandalaksha zone of a deep-laying trough in the earth's crust in the central part of the Baltic Shield. Dokl. AN SSSR 148 no.2:418-419 Ja '63. (MIRA 16:2)

1. Leningradskiy goornyy institut im. G.V. Plekhanova. Predstavleno akademikom A.A. Polkanovym.
(Bothnia Gulf region—Geology, Structural)
(Kandalaksha Bay region—Geology, Structural)

L 05341-67 EWT(1)/FCC MW

ACC NR: AP7000236 SOURCE CODE: UR/0215/66/000/005/0047/0057

14
B

AUTHOR: Shustova, L. Ye.

ORG: Western Geophysical Trust (Zapadnyy geofizicheskiy trest)

TITLE: Deep structure of the Baltic shield determined from geophysical investigations

SOURCE: Sovetskaya geologiya, no. 5, 1966, 47-57

TOPIC TAGS: seismic prospecting, gravimetric survey

ABSTRACT: This is a summary of geophysical investigations carried out on the Baltic shield, both within the USSR and abroad. Accordingly, the author has made use of data from seismic, gravimetric and aeromagnetic investigations, aerial electrical prospecting, and other types of surveys for presenting a composite picture of current information on the shield. Figure 1 is a map of rock densities; Figure 2 is a gravimetric map; Figure 3 shows a map of crustal thickness; Figure 4 is a map of its block structure; Figure 5 is a map showing the rate of recent uplift of the shield; Figure 7 shows the block structure of the "granite" layer. The velocities of elastic waves in this area are constant to a depth of 5-8 km and therefore it is assumed that rock density remains constant to this depth. Beginning at 5-8 km the velocities increase to 6.5-7.0 km/sec, a value constant to a depth of 35-40 km. The density in the interval from 5-8 to 35-40 km is reckoned at 2.85-2.95 g/cm^3.

Card 1/2 UDC: 551.1.(48)

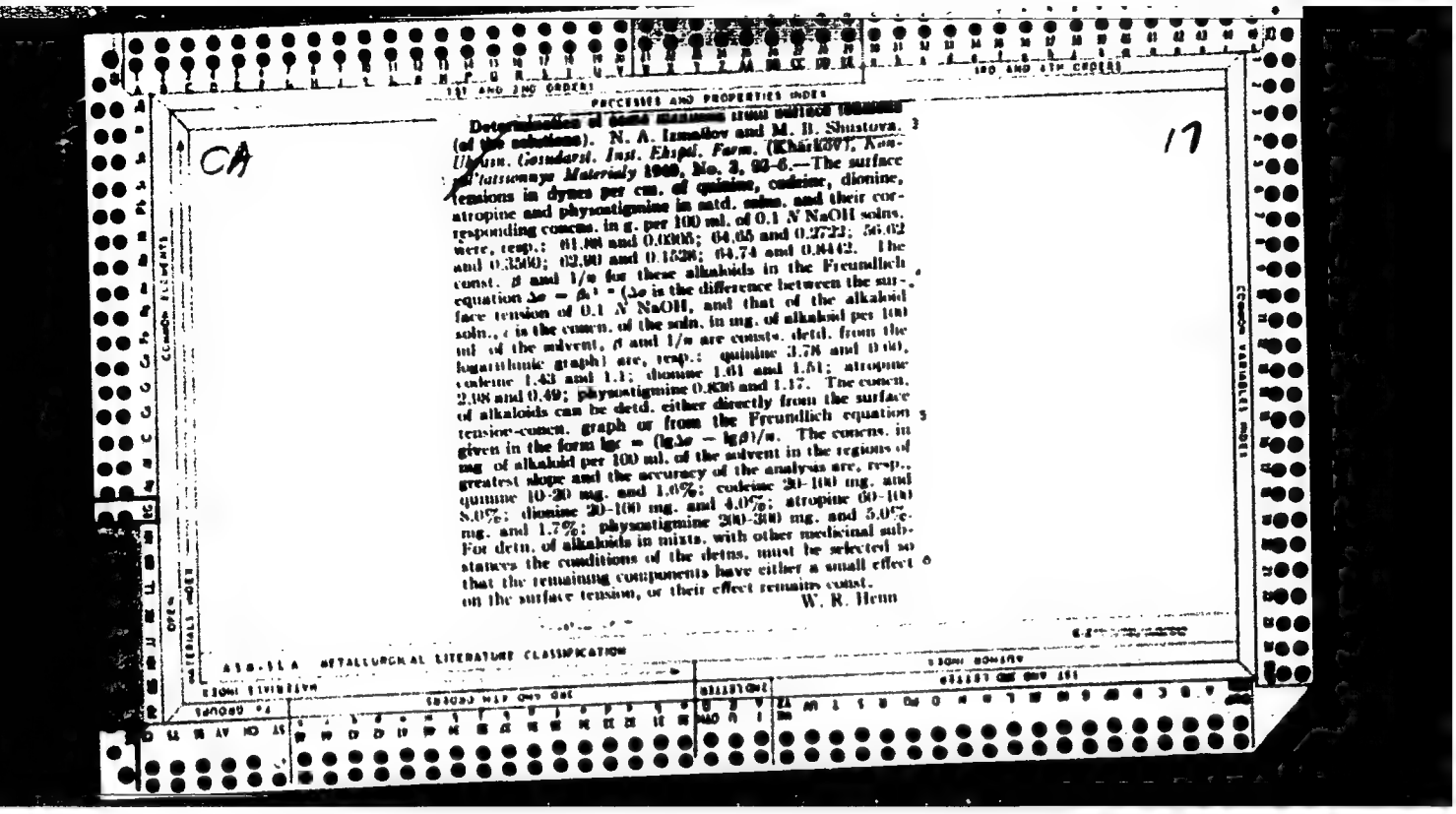
L 05341-67
ACC NR: AP7000236

The density of subcrustal matter is considered constant -- 3.3 g/cm^3. The crust within the Baltic shield consists of two principal layers: an upper, or "granite" layer (to a depth of 5-8 km), characterized by a nonuniform composition, and a lower, or "basalt" layer, with a uniform composition and more basic in character. Orig. art. has: 7 figures. [JPRS: 37,658]

SUB CODE: 08 / SUBM DATE: none / ORIG REF: 020 / OTH REF: 007

kh

Card 2/2



PROCESSES AND PROPERTIES INDEX

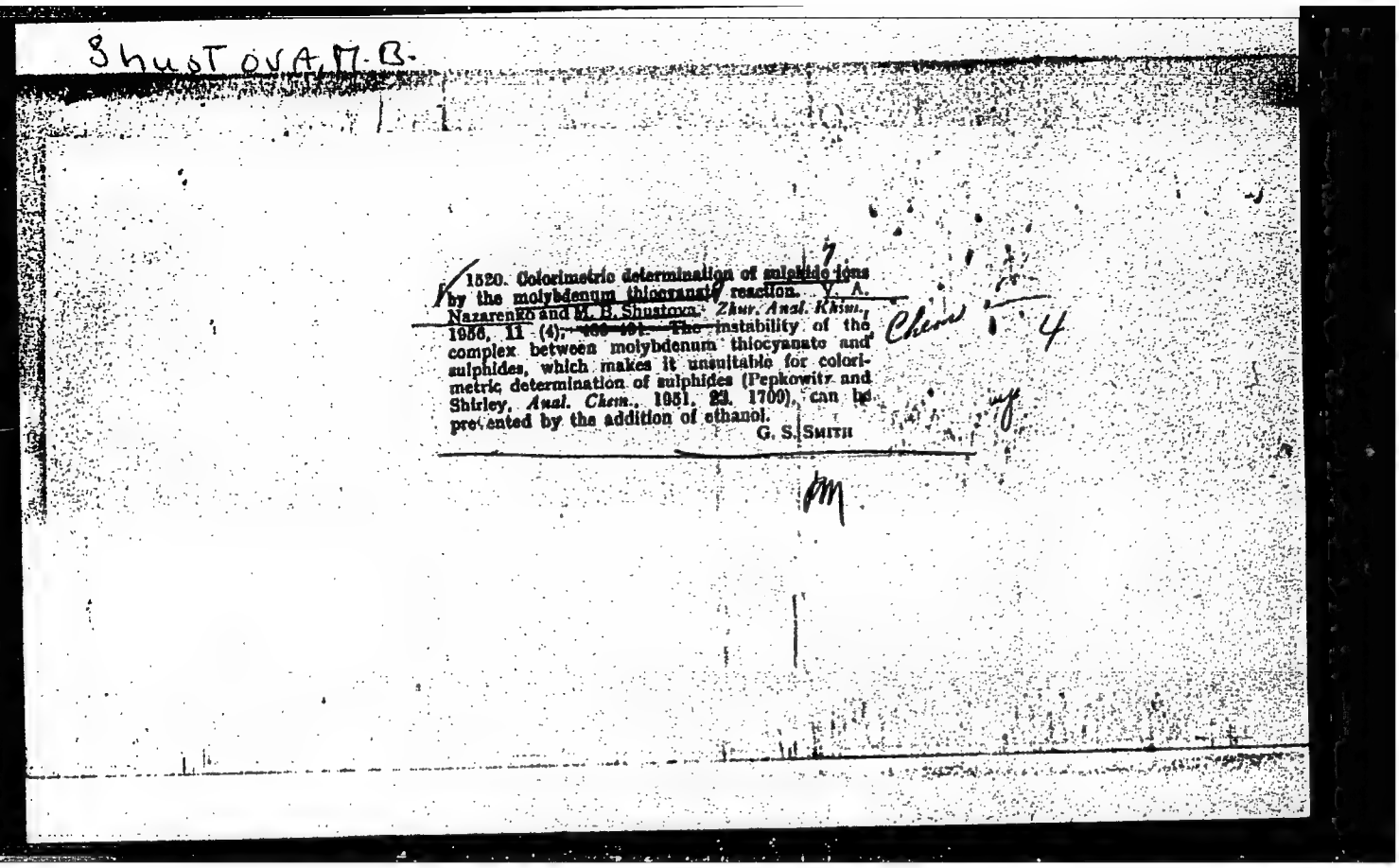
CA

17

Determination of [illegible] surface tension (of the solutions). N. A. Izmailov and M. B. Shustova. *Ukrain. Gosudarst. Inst. Eksptl. Farm.* (Kharkhov), *Nauch. Zapiski Materialy* 1940, No. 3, 92–6.—The surface tensions in dynes per cm. of quinine, codeine, dionine, atropine and physostigmine in satd. solns. and their corresponding concns. in g. per 100 ml. of 0.1 *N* NaOH solns. were, resp.: 61.808 and 0.0308; 64.65 and 0.2722; 56.02 and 0.3500; 62.80 and 0.1528; 64.74 and 0.8442. The const. β and 1/*n* for these alkaloids in the Freundlich equation $\Delta\sigma = \beta c^{1/n}$ ($\Delta\sigma$ is the difference between the surface tension of 0.1 *N* NaOH, and that of the alkaloid soln., *c* is the concn. of the soln. in mg. of alkaloid per 100 ml. of the solvent, β and 1/*n* are consts. detd. from the logarithmic graph) are, resp.: quinine 3.78 and 0.10, codeine 1.43 and 1.1; dionine 1.61 and 1.61; atropine 2.08 and 0.49; physostigmine 0.836 and 1.17. The concn. of alkaloids can be detd. either directly from the surface tension-concn. graph or from the Freundlich equation given in the form $\lg c = (\lg\Delta\sigma - \lg\beta)/n$. The concns. in mg. of alkaloid per 100 ml. of the solvent in the regions of greatest slope and the accuracy of the analysis are, resp.: quinine 10–20 mg. and 1.0%; codeine 20–100 mg. and 8.0%; dionine 20–100 mg. and 4.0%; atropine 60–100 mg. and 1.7%; physostigmine 200–300 mg. and 5.0%. For detn. of alkaloids in mixts. with other medicinal substances the conditions of the detns. must be selected so that the remaining components have either a small effect on the surface tension, or their effect remains const.

W. R. Henn

A 53-11 A METALLURGICAL LITERATURE CLASSIFICATION

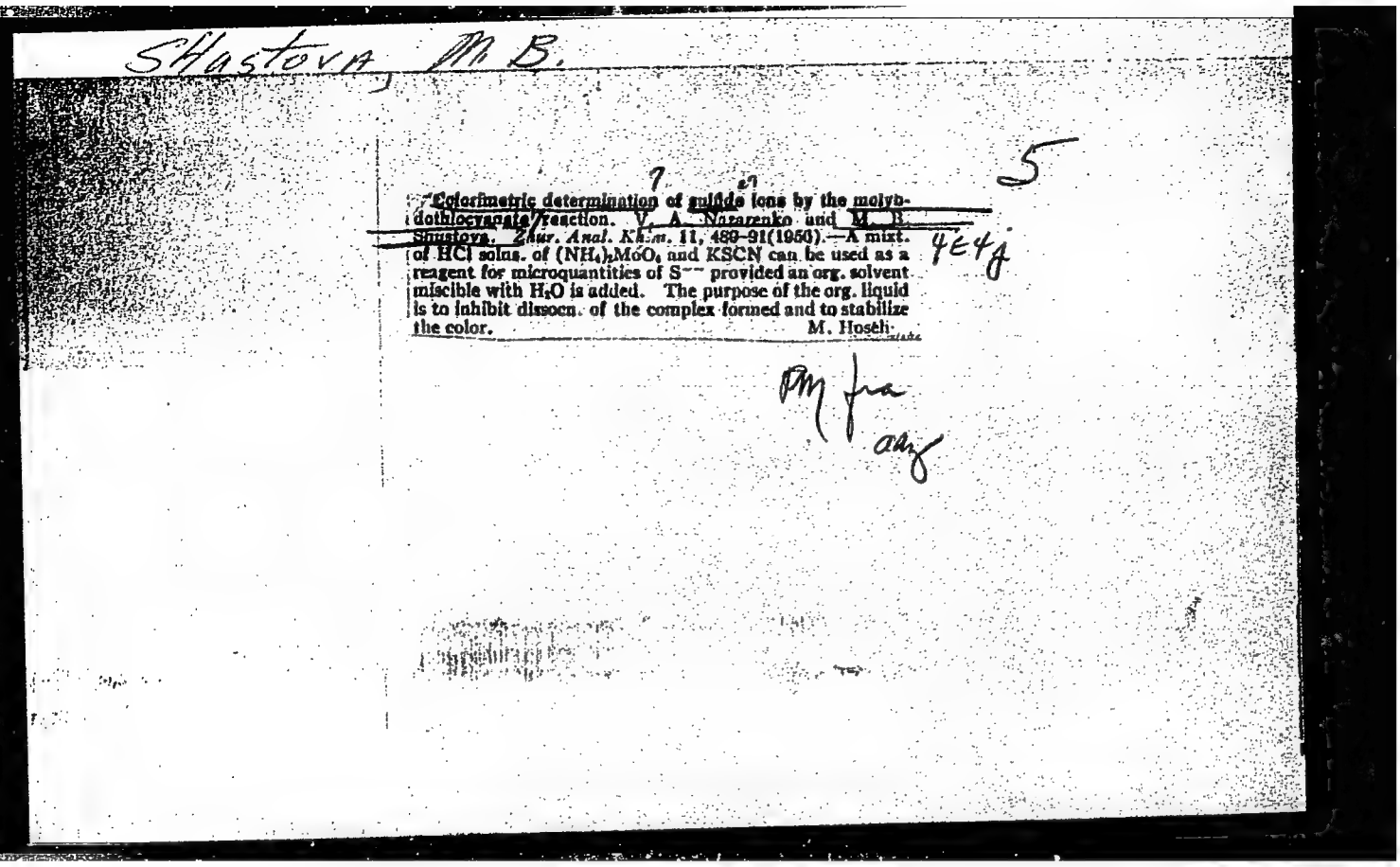


Shustova M. B.

1520. Colorimetric determination of sulphide ions by the molybdenum thiocyanate reaction. V. A. Nazarenko and M. B. Shustova. *Zhur. Anal. Khim.*, 1956, 11 (4), 480–481. The instability of the complex between molybdenum thiocyanate and sulphides, which makes it unsuitable for colorimetric determination of sulphides (Pepkowitz and Shirley, *Anal. Chem.*, 1951, 23, 1709), can be prevented by the addition of ethanol.

G. S. Smith

Chem 1-4

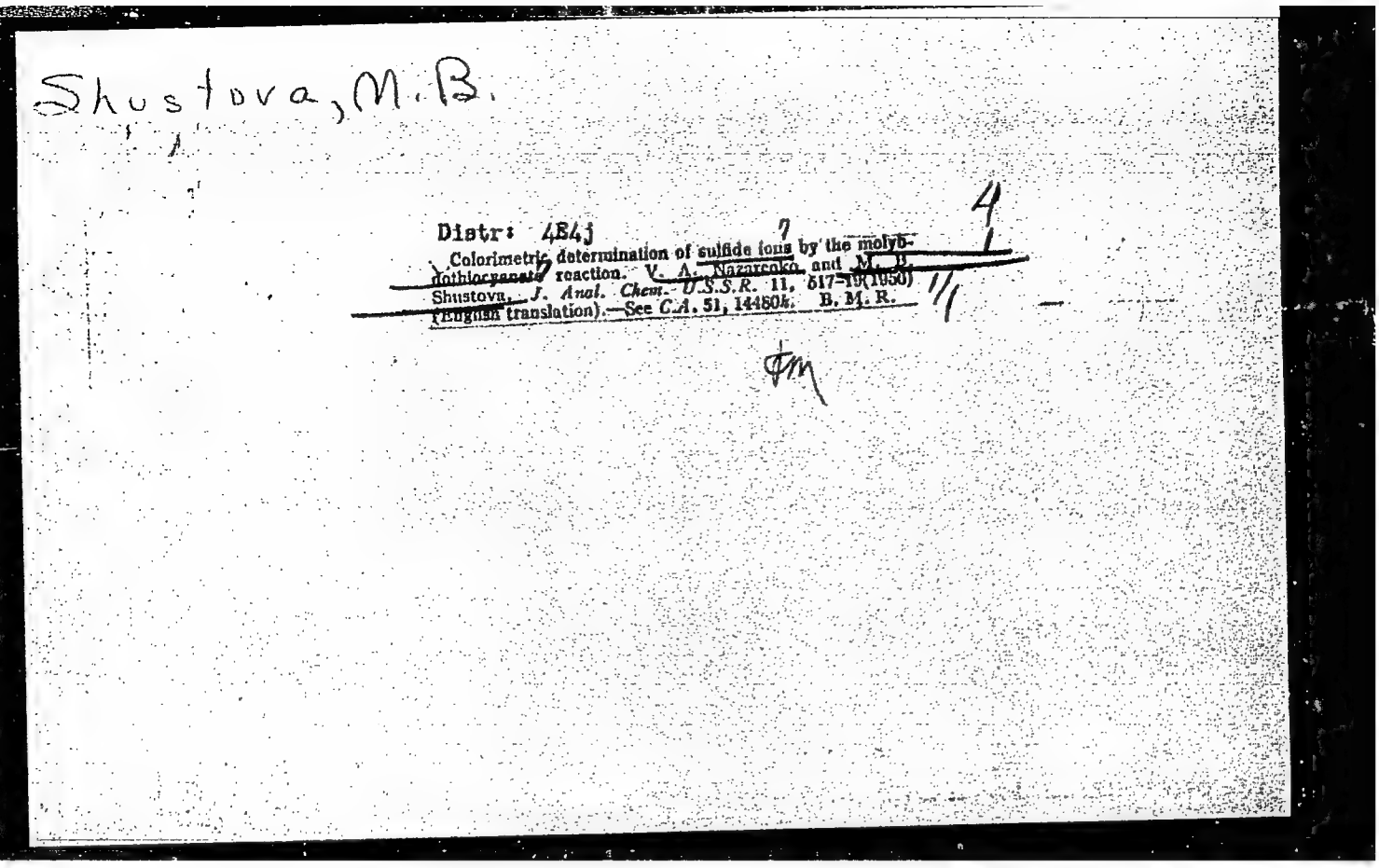


Shastova, M. B.

5

Colorimetric determination of sulfide ions by the molybdothiocyanate reaction. V. A. Nazarenko and M. B. Shastova. *Zhur. Anal. Khim.* 11, 489–91(1950).—A mixt. of HCl solns. of $(NH_4)_2MoO_4$ and KSCN can be used as a reagent for microquantities of S^{--} provided an org. solvent miscible with H_2O is added. The purpose of the org. liquid is to inhibit dissocn. of the complex formed and to stabilize the color. M. Hoseh

4E4j



Shustova, M. B.

Distr: 4E4j

Colorimetric determination of sulfide ions by the molybdothiocyanate reaction. V. A. Nazarenko and M. B. Shustova. *J. Anal. Chem. U.S.S.R.* 11, 617-19(1956) (English translation).—See *C.A.* 51, 14480k. B. M. R.

Shustova, M.B.

AUTHORS: Nazarenko, V.A., Shustova, M.B. 32-11-3/60

TITLE: Analysis of Pure Metals. Determination of the Tantalum Content in Zirconium and Niobium (Analiz chistykh metallov. Opredeleniye primesi tantala v tsirkonii i niobii)

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol. 23, Nr 11, pp. 1283-1286 (USSR)

ABSTRACT: For the purpose of determining the tantalum content by the colorimetric method the derivatives of 2, 3, 7-trioxide-6-fluorine are recommended and dimethyl fluoron is particularly recommended. Tantalum in connection with dimethyl fluoron results in a bright red coloring. Without a content of tantalum the solution is yellow. Determination of the tantalum content at its minimum 3 γ is carried out from the 10 ml of the solution, which is decinormal with respect to hydrochloric acid, and 0.4% ammonium oxalate and contains 1 ml of the 1% gelatin solution. The following solutions are recommended for the processes of determination: 1. Mixtures of acids: a) 4-m nitric acid + 1- m hydrofluoric acid (70 ml of the 11-nitric acid + 118 ml water + 12 ml 40% hydrofluoric acid); b) 4-m with respect to hydrochloric acid + 2-m according to fluoric acid(70 ml of the 11-n nitric acid + 106 ml of water + 24 ml of 40% fluoric acid). 2. Dimethylfluoron:

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32-11-3/60

Analysis of Pure Metals. Determination of the Tantalum Content in Zirconium and Niobium

- 0.05% solution (50 mg + 0.5 ml of the 6-n nitric acid solution + 50 ml of 96% spirit). 3. Dilution solution: 10 g potassium pyrosulphate melt + 100 ml of the 4% solution of the ammonium oxalate + 250 ml water neutralized to slightly yellow by means of caustic potash. To this 50 ml of 2-n hydrochloric acid is added, and the entire mixture is dissolved in water up to 1000 ml. 4. Rinsing solution for extraction: 30 ml acid mixture as 1b + 20 ml ammonium sulphate solution + 20 ml isobutanol + 20 ml acetone. 5. Tantalum standard solution: 25 mg tantalum is dissolved in the mixture of fluoric- and nitric acid, after which 1 ml of sulphoric acid is added, and the whole is vaporized and then melted together with 2.5 g potassium pyrosulphate. The melt is dissolved in ammonium oxalate up to 250 ml. The paper then describes the process of determining the tantalum content in zirconium and in niobium. There are 4 tables.

AVAILABLE: Library of Congress

Card 2/2

SHUSTOVA, V.P., Cand Chem Sci-- (diss) "Study of [illegible] fluoron as a new reactive for the determination of tantalum." Odessa, 1958, 14 pp (Min of Higher Education UkSSR. Odessa State Univ im I.I. Mechnikov) 100 copies (KL, 40-58, 123)

5(2), 5(4)

AUTHORS: Nazarenko, V. A., Shustova, M. B. SOV/32-24-11-9/37

TITLE: Fluorometric Determination of Sulfate Ions and Spectrophotometric Determination of Thorium Using Derivatives of Trioxyfluoron (Fluorometricheskoye opredeleniye sul'fat-ionov i spektrofotometricheskoye opredeleniye toriya s pomoshch'yu proizvodnykh trioksifluorona)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 11, pp 1344-1346 (USSR)

ABSTRACT: Compounds such as the 9-(o-oxy-phenyl), 9-trichloro-methyl, and 9-propyl-2,3,7-trioxyfluorons can be used as complex-forming reagents for barium, thorium, and zirconium. Solutions of the unreacted fluorons, however, exhibit a tendency to fluoresce. Among the various trioxyfluoron derivatives available for the determinations mentioned in the title the 9-(o-oxy-phenyl)-trioxyfluoron (Salicylfluoron) appears to be the most suitable. This compound forms a red complex with thorium in weakly acidic medium (pH $>$ 2). The maximum light absorption of this complex lies at 500-530 mμ (pH=4.4). The ratio of thorium to fluoron in the complex is 1:2. The measurements were carried

Card 1/3

Fluorometric Determination of Sulfate Ions and Spectrophotometric Determination of Thorium Using Derivatives of Trioxyfluoron

out on a Pulfrich (Pul'frikh) photometer after 24 hours on mixtures containing $0.4.10^{-5}$ to $3.6.10^{-5}$ moles Th and $3.6.10^{-5}$ to $0.4.10^{-5}$ moles salicylfluoron in 20% ethanol. The molar extinction coefficient of the salicylfluoron complex with thorium was found to be 26,000 at pH=4.4, 530 mμ and using $0.3\text{-}1.0.10^{-5}$ moles Th. The reaction obeys Beer's (Ber) Law. The determination of sulfate ion with salicylfluoronate is based on the formation of a sulfate complex which forms with the thorium complex, and according to the fluorescence of the free unreacted salicylfluoron the concentration of SO_4-ion can be determined. For the determination of microgram quantities of sulfate ion solutions of 2.10^{-4} molar thorium nitrate and 5.10^{-5} molar salicylfluoron are prepared. For quantitative determinations it is necessary to prepare a series of standard solutions, for example, with 0-0.25-0.5-1.0-1.5-2.0 γ SO_4^{2-} sulfate ion. There are 2 figures and 5 references, 2 of which

Fluorometric Determination of Sulfate Ions and Spectrophotometric Determination of Thorium Using Derivatives of Trioxyfluoron

are Soviet.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk USSR (Institute of General and Inorganic Chemistry, AS UkrSSR)

S/0[illegible]2/60/026/012/002/036
B020/B056

5.5230 1273, 1350 only

AUTHORS: Shustova, M. B., Nazarenko, V. A.

TITLE: Analysis of Pure Metals. Determination of Vanadium Impurities in Titanium

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 12, pp. 1339-1341

TEXT: In the present paper, the use of a method of determining vanadium quantities of less than one microgram (Ref. 1), which is based upon the catalytic acceleration of the aniline oxidation by potassium chlorate in the presence of oxine as activator (Ref. 2), is demonstrated by determining microquantities of vanadium in titanium. Under the conditions mentioned, the solution becomes yellowish-brown in the presence of vanadium, while otherwise the solution is light-yellow. The sensitivity of the reaction is increased by heating, but after a longer period of heating, dim solutions are formed, which cannot be photometrized. The reaction product may be extracted by means of organic solvents (ethyl or amyl acetates, isoamyl alcohol), in which case the extracts are brownish-red. During extraction of the reaction products, the detection limit is 0.01 γ -vanadium in 100 ml

Analysis of Pure Metals. Determination of Vanadium Impurities in Titanium

solution (maximum dilution 1 : 10^{10}). The light absorption curves of the ethyl acetate extracts obtained in the manner described in the absence and presence of 0.2 γ V are given in Fig. 1. They were recorded at the optimum wave length of 390 mμ. Fig. 2 shows the dependence of the optical density of the extracts on the quantity of vanadium during measurement in relation to the ethyl acetate by means of the spectrophotometer СФ-4 (SF-4) at 390 mμ and by means of the horizontal photometer ФМС-56 (FMS-56) with the light filter МС-47 (MS-47) at 465 mμ. Larger quantities of titanium disturb, because they bind oxine; in quantities of up to 500 γ, titanium may be masked by the addition of ammonium tartrate. In this case the sensitivity is reduced to one fifth. Up to 500 γ iron may be masked by the addition of pyrophosphate without disturbing; also platinum does not disturb. The best results were obtained in the extraction with isoamyl alcohol. In this case vanadium can be quantitatively extracted at pH=5. Here, ammonium tartrate must, however, be added, which binds titanium to a complex; otherwise, the latter is precipitated. The results obtained show that by this method up to 5.10^{-5}% V in 0.1 g titanium may be determined (Table). The method is not suited for analysis of titanium, which contains some tenths or hundredths of molybdenum. Molybdenum in quantities lower than

Card 2/3

37704

Analysis of Pure Metals. Determination ... S/032/60/026/012/002/056
Vanadium Impurities in Titanium B020/B056

0.001% does not disturb the determination of vanadium. There are 2 figures, 1 table, and 7 references: 4 Soviet, 1 Austrian, and 2 Japanese.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk USSR (Institute of General and Inorganic Chemistry of the Academy of Sciences of the UkrSSR)

Card 3/3

S/137/62/000/003/[illegible]
A160/A101

AUTHORS: Nazarenko, V. A.; Shustova, M. B.

TITLE: Determination of tantalum in lean ores by colorimetric means

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962. 3, abstract 3 K 9. ("Khim., fiz.-khim. i spektr. metody issled. rud redk. i rasseyan. elementov", Moscow, Gosgeoltekhizdat, 1961, 83 - 91)

TEXT: It has been established that all trioxyfluoron derivatives can be used as reagents for Ta, yet the most sensitive and specific one of them is 9-paradimethyl aminophenyl-2, 3, 7-trioxy-6-fluoron, called dimethyl fluoron (I). The initial Ta water-base solution is evaporated to dryness in a Pt-bowl. The radical is subjected to a slight calcination, treated with 2 ml HF, evaporated to dryness, supplemented with 20 ml of a 5 % H_3BO_3, then again evaporated to dryness. Then it is melted at 500 - 600°C, supplemented with 5 g K persulfate and fused with it at 600 - 650°C. The melt is dissolved in 2.5 ml of a 4 % $H_2C_2O_4$, transferred into a 50 ml flask, neutralized for 2,4-dinitrophenol with the aid of 1 normal KOH solution until the appearance of a slightly noticeable yellow

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530 m
1 ml g
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[illegible]est tube is
[illegible]ver 15 minutes, at
[illegible]est (10 ml of the diluent,
[illegible]termination process is carried-
[illegible]was separated from inhibiting and
[illegible]arth "acids" with tannin, from a 3 - 6 %

Card 1/3

Card 2/3

S/032/61/027/001/002/037
B017/B054

AUTHORS: Nazarenko, V. A. and Shustova, M. B.

TITLE: Determination of Iodine Microimpurities in Elementary Silicon

PERIODICAL: Zavodskaya laboratoriya, 1961, Vol. 27, No. 1, pp. 15-16

TEXT: A method was developed to determine iodine microimpurities in silicon. The impurities are extracted with benzene after oxidation of the iodide to elementary iodine. The course of analysis is indicated: 1 or 0.5 g of finely ground silicon is dissolved in a 20-ml 3 N sodium hydroxide solution which is heated simultaneously. 5 ml of sulfuric acid 1:1 is added to the solution, and water is added until an amount of 150 ml is reached. The sample is placed in a separating funnel, mixed with sodium nitrite, and twice extracted with benzene. The iodine content is determined colorimetrically. Results are given in a table. By this method it is possible to determine 0.5 γ of iodine in 1 g of silicon, i.e., $5 \cdot 10^{-5}$%. This method is mainly intended for semiconductor silicon which contains small iodine impurities after production by the iodide method. There is 1

Card 1/2

Determination of Iodine Microimpurities in Elementary Silicon

S/032/61/027/001/002/037
B017/B054

table.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk USSR (Institute of General and Inorganic Chemistry, Academy of Sciences UkrSSR)

Card 2/2

NAZARENKO, V.A.; SHUSTOVA, M.B.; RAVITSKAYA, R.V.; NIKONOVA, M.P.

Determination of calcium, aluminum, and chromium impurities in antimony. Zav.lab. 28 no.5:537-539 '62. (MIRA 15:6)

1. Institut obshchey i neorganicheskoy khimii AN USSR.
(Antimony--Analysis) (Metals--Analysis)

S/032/62/028/006/002/025
B110/B101

AUTHORS: Nazarenko, V. A., Shustova, M. B., Shitareva, G. G., Yagnyatinskaya, G. Ya., and Ravitskaya, R. V.

TITLE: Determination of impurities in titanium

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 6, 1962, 645 - 648

TEXT: The determination of the contents of Ta, Al, P, Si, Mg, Cr, Mn, Fe, and Ni in Ti with an accuracy of 0.0001% is described. (1) Tantalum is photometrically determined with dimethyl fluorone (50 mg in 100 ml 96% C_2H_5OH and 0.5 ml 6 N HCl) after extraction as a fluorine complex with an acetone-isobutanol mixture. (2) Manganese is determined colorimetrically in the form of diethyl dithiocarbaminate. (3) Iron is determined colorimetrically as thiocyanate after extraction of the oxinate (5 ml 1% oxine solution in 1 N CH_3COOH) using chloroform in the presence of H_2O_2 at pH > 8 (HNO_3, H_3PO_4, and potassium periodate) as manganic acid after extraction (4) Nickel is colorimetrically determined with dimethyl glyoxime after the

Card 1/2

S/078/62/007/012/010/022
B144/B180

AUTHORS: Nazarenko, V. A., Lebedeva, N. V., Biryuk, Ye. A., Shustova, M. B.

TITLE: Complex compounds of multivalence metals with trioxyfluorones

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 7, no. 12, 1962, 2731-2738

TEXT: The complex formation between GeO_2, $ZrOCl_2$ or $SbCl_3$ and phenyl fluorone and between $Sc_2(SO_4)_3$ and propyl fluorone was studied spectroscopically in acid media after stabilization with gelatine to ascertain whether the metal ion substitutes two H atoms in the diphenol or one H atom in the o-hydroxyquinone. A new scheme, based on the solubility product, is given for the evaluation of the spectrophotometric data; this was necessary because of the low solubility of the complexes. The complex formation with Zr was studied in 0.2 - 0.8 N HCl and showed that only a 1:2 complex forms (optimum 0.2 - 0.3 N HCl). This was confirmed by both the isomolar series and the molar ratios. The Zr complex is thus consistent with other Me^{IV} trihydroxy fluorone complexes. A study of the change in optical density as a function of the pH showed that only one H

Card 1/2

NAZARENKO, V.A.; LEBEDEVA, N.V.; SHUSTOVA, M.B.; BIRYUK, Ye.A.

Trihydroxyfluorenes. Metod.poluch.khim.reak. i prepar. no. 7: 21-24 '63. (MIRA 17:4)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR, Odessa.

SHUSTOVA, M.B.; NAZARENKO, V.A.

Trihydroxyfluorones as reagents for the photometric determination of molybdenum. Zhur.anal.khim. 18 no.8:964-971 Ag '63. (MIRA 16:12)

1. Institute of General and Inorganic Chemistry, Academy of Sciences, Ukrainian S.S.R., Laboratories in Odessa.

L 15203-65 EWT(m)/EPF(n)-2/EPR/EWP(b) Ps-4/Pu-4 SSD/ASD(a)-5/AFWL/ESD(gs)/ASD(f)-2/ASD(m)-3/AS(mp)-2 JD/JG/MLK

ACCESSION NR: AT4048100 S/0000/64/000/000/0150/0153

B+1

AUTHOR: Nazarenko, V.A., Shustova, M.B.

TITLE: Photometric determination of microquantities of molybdenum in high-melting metals

SOURCE: Spektral'ny*ye i khimicheskiye metody* analiza materialov (Spectral and chemical methods of materials analysis); sbornik metodik, Moscow, Izd-vo Metallurgiya, 1964, 150-153

TOPIC TAGS: molybdenum, diethyldithiocarbamate, radiometry, quantitative analysis, colorimetric analysis, refractory metal, nitrophenylfluorone

ABSTRACT: For the separation of microquantities of molybdenum from difficulty fusible metals such as Ti, Zr, V, Nb, Ta and W, extraction with a chloroform solution of diethyldithiocarbamic acid was found to be more specific than methods based on molybdenum extraction after the addition of sodium diethyldithiocarbamate to a 1 N hydrochloric acid solution. The percentage of molybdenum extracted, determined radiometrically using Mo^{99} and photometrically with orthonitrophenylfluorone, amounts to 98% with extraction from 6 N H_2SO_4 using phases of equal volume. Citric acid was used to retain the niobic, tungstic and other acids in solution. Vanadium was first reduced

Card 1/2

L 15203-65

ACCESSION NR: AT4048100

with tartrate to the tetravalent form. For the determination of molybdenum, its reaction with orthonitrophenylfluorone was used, the synthesis of which is described. The extraction of molybdenum is also described. This method makes it possible to determine $5 \times 10^{-2} - 2 \times 10^{-5}$% Mo in Ti, Zr, Hf, Nb and Ta, and 3×10^{-5}% Mo in tungsten. The analytical results for the above-mentioned metals are tabulated. Orig. art. has: 1 table.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii Akademii nauk UkrSSR Institute of General and Inorganic Chemistry, Academy of Sciences Ukr. SSR)

SUBMITTED: 12Feb64 ENCL: 00 SUB CODE: MM, IC

NO REF SOV: 003 OTHER: 002

Card 2/2

L 52279-65 EWT(m)/EPF(n)-2/EWG(m)/EPR/EWP(t)/EWP(b) Ps-4/Pu-4 IJP(c)

JD/JG

ACCESSION NR: AT5012673 UR/2513/65/015/000/0111/0120 28 27 B+1

AUTHOR: Shustova, M.B. 27

TITLE: Extraction of molybdenum in the form of the diethyldithiocarbamate complex

SOURCE: AN SSSR. Komissiya po analiticheskoy khimii. Trudy, v. 15, 1965. Metody kontsentrirovaniya veshchestv v analiticheskoy khimii (Methods of concentrating substances in analytical chemistry), 111-120

TOPIC TAGS: molybdenum extraction, molybdenum determination, refractory metal analysis, colorimetric analysis, diethyldithiocarbamate complex, orthonitrophenylfluorone

ABSTRACT: The author studied the stability of chloroform solutions of DDC acid (diethyldithiocarbamic acid), the absorption spectra of chloroform solutions of DDC acid and its complexes with molybdenum, and the dependence of the optical density of the extracts on the concentration of sulfuric acid in the aqueous phase and on the molybdenum concentration. The measurements were made with an SF-4 spectrophotometer. It was found that the concentration of chloroform solutions of DDC acid remains constant for 5 days if they are kept at a temperature not above 2C. Maximum

Card 1/2

L 52279-65

ACCESSION NR: AT5012673

optical density is displayed by the DDC complex of molybdenum extracted from 1 N sulfuric acid. A decrease in the optical density of the chloroform solutions of DDC complexes is due to the reduction of molybdenum by DDC acid to the pentavalent state. The Mo-DDC complex was found to have the composition $MoO_2(C_4H_{10}NCS_2)_2$, this being in agreement with the findings of other authors. The formation of this complex was used by the author to separate molybdenum prior to its determination in refractory metals – Ta, Nb, Ti, Zr, Hf, V, and W; the chloroform extract of the DDC-Mo complex was evaporated, the organic substances were decomposed by heating, and molybdenum was determined with orthonitrophenylfluorone. Orig. art. has: 6 figures, 2 tables, and 1 formula.

ASSOCIATION: Komissiya po analiticheskoy khimii, AN SSSR (Commission on Analytical Chemistry, AN SSSR)

SUBMITTED: 00 ENCL: 00 SUB CODE: IC, GC

NO REF SOV: 007 OTHER: 005

Card 2/2.

ACC NR: AP6010053 SOURCE CODE: UR/0032/66/032/003/0267/0269

AUTHOR: Nazarenko, V. A.; Biryuk, Ye. A.; Shustova, M. B.; Shitareva, G. G.; Vinkovetskaya, S. Ya.; Flyantikova, G. V. 56 B

ORG: Institute of General and Inorganic Chemistry, AN UkrSSR (Institut obshchey i neorganicheskoy khimii AN UkrSSR)

TITLE: Determination of impurities in tantalum 21

SOURCE: Zavodskaya laboratoriya, v. 32, no. 3, 1966, 267-269

TOPIC TAGS: tantalum, impurity level, photometric analysis, iron, copper, tin, lead

ABSTRACT: The photometric determination of impurities in tantalum is described. It has a sensitivity of 10^{-4}% and requires all the precautionary measures used during the analysis of high-purity metals, including the running of blank experiments under conditions of sample analysis. The photometric determination is preceded by extraction of the analyzed element (Pb, Cu, Fe, Ni, or Sn) from the tantalum sample, by extraction during the determination of tantalum in Zr, Bi, and Zn in the form of a fluortantalate complex, and by determination of chromium after separation of the tantalum by hydolysis. Lead and cadmium are determined by dithizone after extraction of the lead and cadmium (in the form of diethyldithiocarbaminates) from acid medium with chloroform. The interfering effect of other elements is eliminated by washing the extract with alkaline

Card 1/2 UDC: 543.7

ACC NR: AP6010053

solution (pH 12) containing cyanide, tartrate, and diethyldithiocarbaminate. The rhodanide method, with extraction of the dyed complex, is used for the determination of iron. Copper is determined by dithizone. The separation of iron and copper from tantalum is made by extraction of their diethyldithiocarbaminate salts. Tin is determined photometrically with paranitrophenylfluorone after extraction of the tin from the sulfate medium with chloroform in the form of diethyldithiocarbaminate. This is made similarly to the determination of tin in niobium (N. B. Lebedeva, V. A. Nazarenko, Trudy Komissii po anaticheskoy khimii, Izd. AN SSSR, XI, 287, 1960). It is convenient to determine some impurities after separating the tantalum from them. This can be done by the extraction of the fluorotantalum complex with ketones (e.g., cyclohexanone) from its solution in HF and H_2NO_3 or H_2SO_4, while Zr, Ti, Bi, and Zn can be determined in the aqueous phase: Zr with phenylfluorone, Bi by the iodide-ketone method, and Zn with dithizone. Chromium is determined with diphenylcarbazide after separation of tantalum by hydrolysis.

SUB CODE: 11,07/ SUBM DATE: none/ ORIG REF: 008

Card 2/2 hs

RAYKHSHTAT, G.N.; SHAPIRO, A.A.; SHUSTOVA, N.G.

Outbreak of whooping cough in a kindergarten. Zhur. mikrobiol., epid. i immun. 41 no.9:142 S '64. (MIRA 18:4)

1. Sanitarno-epidemiologicheskaya stantsiya Sverdlovskogo rayona Moskvy.

L 15673-66 EWT(m)/EWP(w)/T/EWP(t)/EWP(b) IJP(c) JD

ACC NR: AP6000196 SOURCE CODE: UR/0056/65/049/005/1431/1434

AUTHOR: Motulevich, G. P.; Shubin, A. A.; Shustova, O. F.

ORG: Physics Institute im. P. N. Lebedev, AN SSSR (Institut fiziki AN SSSR)

TITLE: The effect of periodic structure on the optical properties of aluminum

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 5, 1965, 1431-1434

TOPIC TAGS: aluminum, optic property, refractive index, ir phenomenon, skin effect, conduction electron, electron collision, metal crystal, metal crystallization, light polarization, electron interaction, periodic system

ABSTRACT: The authors measured the real and imaginary parts of the refractive index of crystalline and amorphous aluminum in the infrared region. In both cases, layers of 99.99% pure aluminum were evaporated in vacuum on a glass substrate. A crystalline or amorphous structure was obtained by varying the cooling rate. The measurements were made by a polarization technique, using four-color reflection of light from the investigated surface, as described by the authors earlier (Optika i spektroskopiya, v. 3, 361, 1957). The measurements have shown that the skin effect exhibits a slightly anomalous character in crystalline aluminum at room temperature, but in amorphous aluminum it is almost normal. The concentration of the conduction electrons and the effective collision frequency of the electrons, which determine the refractive index, are calculated, and it is shown that on going from crystalline to amorphous layers, the conduction electron concentration increases from approximately

Card 1/2

Card 2/2

SHUSTOVA, S.T.

Machine for removing the board from fabrics after pressing. (MIRA 11:11)
Obm. tekh. opyt. [MLP] no.11:43 '56.
(Textile finishing)

PREOBRAZHENSKAYA, I.N., inzh.; SHUSTOVA, S.T.

Innovators at Kuntsevo Textile Factory. Izobr.i rats. no.7:17-18 Jl '58. (MIRA 11:12)
(Kuntsevo--Textile industry)

L 20597-66 EWT(d)/EWT(m)/EWP(w)/EWP(o)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(l)/ETC(m)-6

ACC NR: AP6009808 JD (N) SOURCE CODE: UR/0096/66/000/004/0010/0013

48
47
B

AUTHOR: Elepko, V. F.; Shustova, T. A. (Engineer)

ORG: All-Union Heat Engineering Institute (Vsesoyuznyy teplotekhnickeskiy institut)

TITLE: Reliability of austenitic steels in power units operating with 650C and 315 atm steam

SOURCE: Teploenergetika, no. 4, 1966, 10-13

TOPIC TAGS: austenitic steel, heat resistant steel, tube steel, steel property

ABSTRACT: Heat-resistant austenitic steels EP17 and EP184 (both used in pipelines of the Kashira power station operating with steam 650C and 315 atm) were tested for the effect of prolonged aging (up to 15,000 hr) at 550, 650, and 700C. Both steels, expecially EP17, were found to undergo significant structural changes which affected their mechanical properties. At exposures up to 5000 hr, the structural changes are limited to the precipitation of $Cr_{23}C_6$ carbide and Fe_2W intermetallic compound, with the precipitation of the latter becoming especially intensive after 3000, 5000, and 10,000 hr at 700, 650, and 550C, respectively. The precipitation of both phases continued for the entire test period (15,000 hr). After 10,000 hr, small amounts of Sigma-phase were observed and the notch toughness of both steels dropped from the original 23—27 mkg/cm^2 to 8—10 mkg/cm^2, regardless of the aging temperature. Prolonged aging also lowered the rupture strength, especially that of EP17 steel. In

Card 1/2 UDC: 669.15-194:621.772.4.001.45

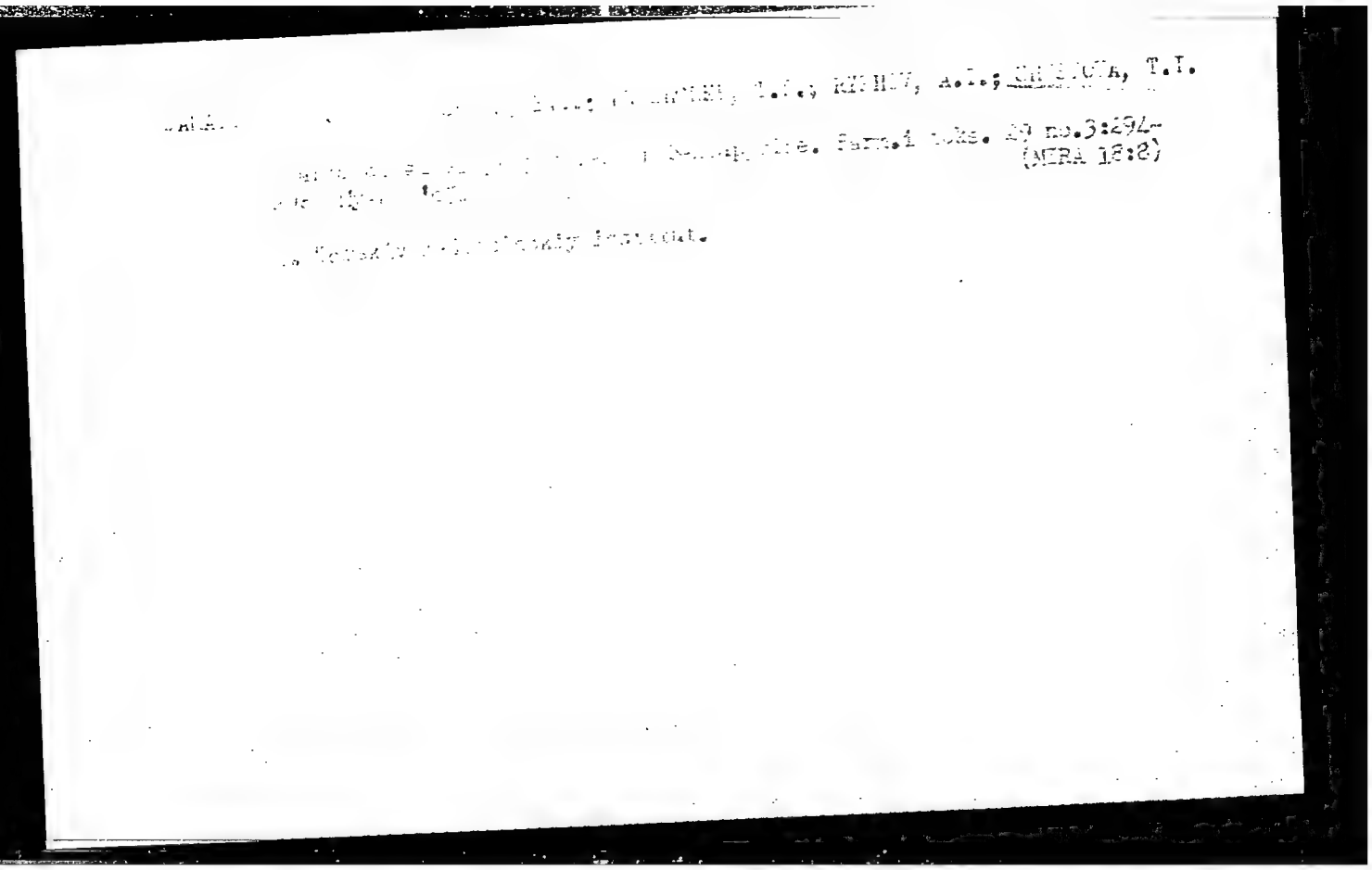
L 20597-66
ACC NR: AP6009808

1

the first 3000—5000 hr, both steels develop a susceptibility to intergranular fracture which then disappears completely (EP184) or decreases (EP17) with prolonged aging. It is concluded that in service under the above conditions both steels, and especially EP17, are less reliable than earlier tested EI695 steel. Orig. art. has: 4 figures and 4 tables. [DV]

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 002/ ATD PRESS: 4224

Card 2/2 BK



AYUKHANOV, A.Kh.; VOSTRILOVA, N.V.; SHUSTROV, V.A.

Evaporation of the components of an oxide cathode in the course of its treatment. Radiotekh. i elektron. 7 no.9:1598-1607 S '62. (MIRA 15:9)

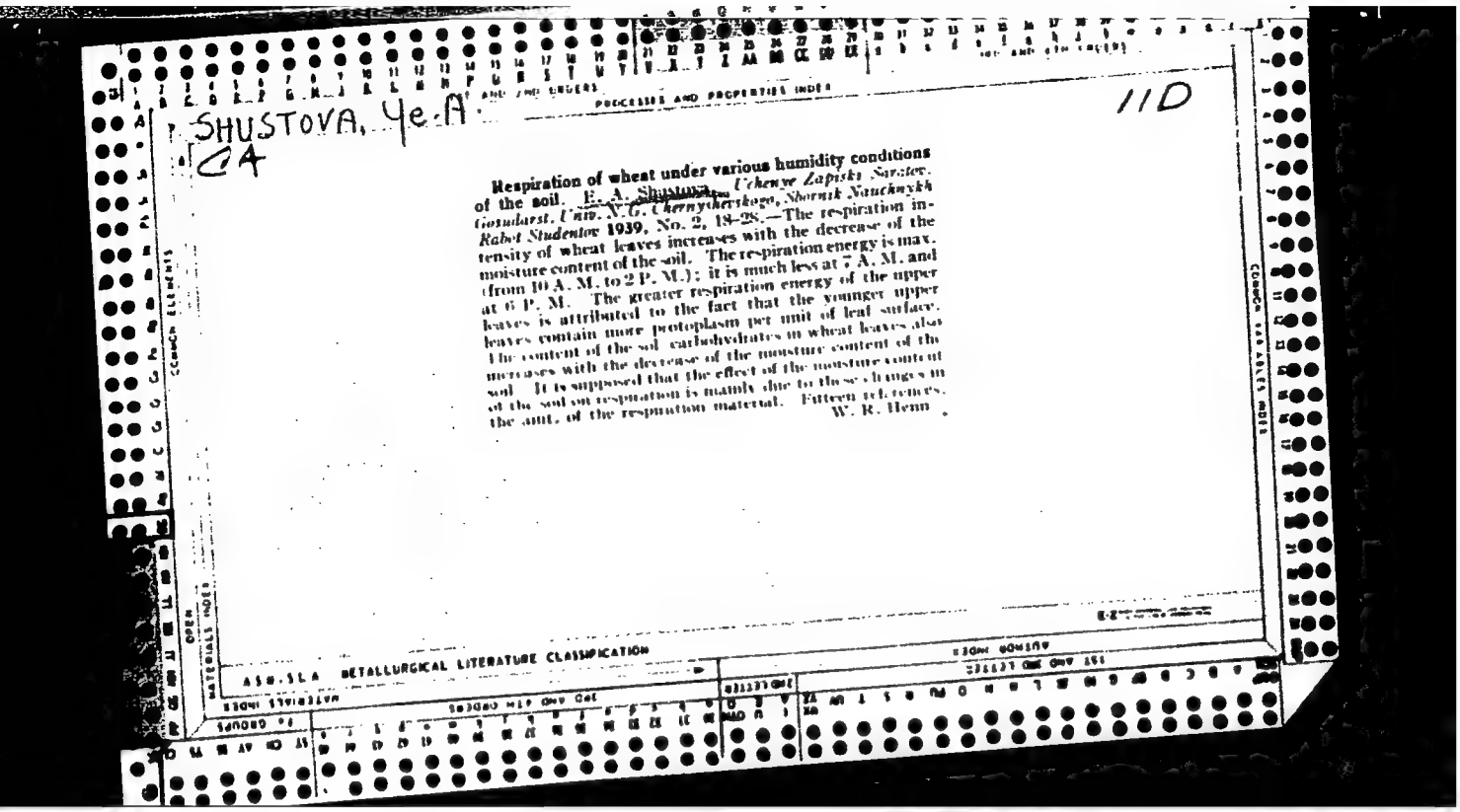
(Cathodes)

ARSENT'YEV, A.I.; YUMATOV, B.P., redaktor; SHUSTOVA, V.I., redaktor; MIKHAYLOVA, V.V., tekhnicheskiy redaktor

[Earthwork by means of tractor and scraper units] Razrabotka mestorozhdenii traktorno-skrepernymi agregatami. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1955. 135 p. (MLRA 8:6)
(Earthwork)

SNISARENKO, L.I.; CHIVIR'OV, O.M. [Chyvyr'ov, O.M.]; POZNYAKOVA, L.Ye. [Pozniakova, L.IE.]; SHUSTOVA, V.P.

Sanitary and hygienic work conditions in the tin can shops of canned food enterprises. Khar. prom. no.4:34-36 O-D '65. (MIRA 18:12)



SHUSTOVA, Ye.A.
CA

11D

PROCESSES AND PROPERTIES INDEX

Respiration of wheat under various humidity conditions of the soil. E. A. Shustova. *Uchenye Zapiski Saratov. Gosudarst. Univ. N.G. Chernyshevskogo, Sbornik Nauchnykh Rabot Studentov* 1939, No. 2, 18–28.—The respiration intensity of wheat leaves increases with the decrease of the moisture content of the soil. The respiration energy is max. (from 10 A. M. to 2 P. M.); it is much less at 7 A. M. and at 6 P. M. The greater respiration energy of the upper leaves is attributed to the fact that the younger upper leaves contain more protoplasm per unit of leaf surface. The content of the soil carbohydrates in wheat leaves also increases with the decrease of the moisture content of the soil. It is supposed that the effect of the moisture content of the soil on respiration is mainly due to those changes in the amt. of the respiration material. Fifteen references.

W. R. Henn

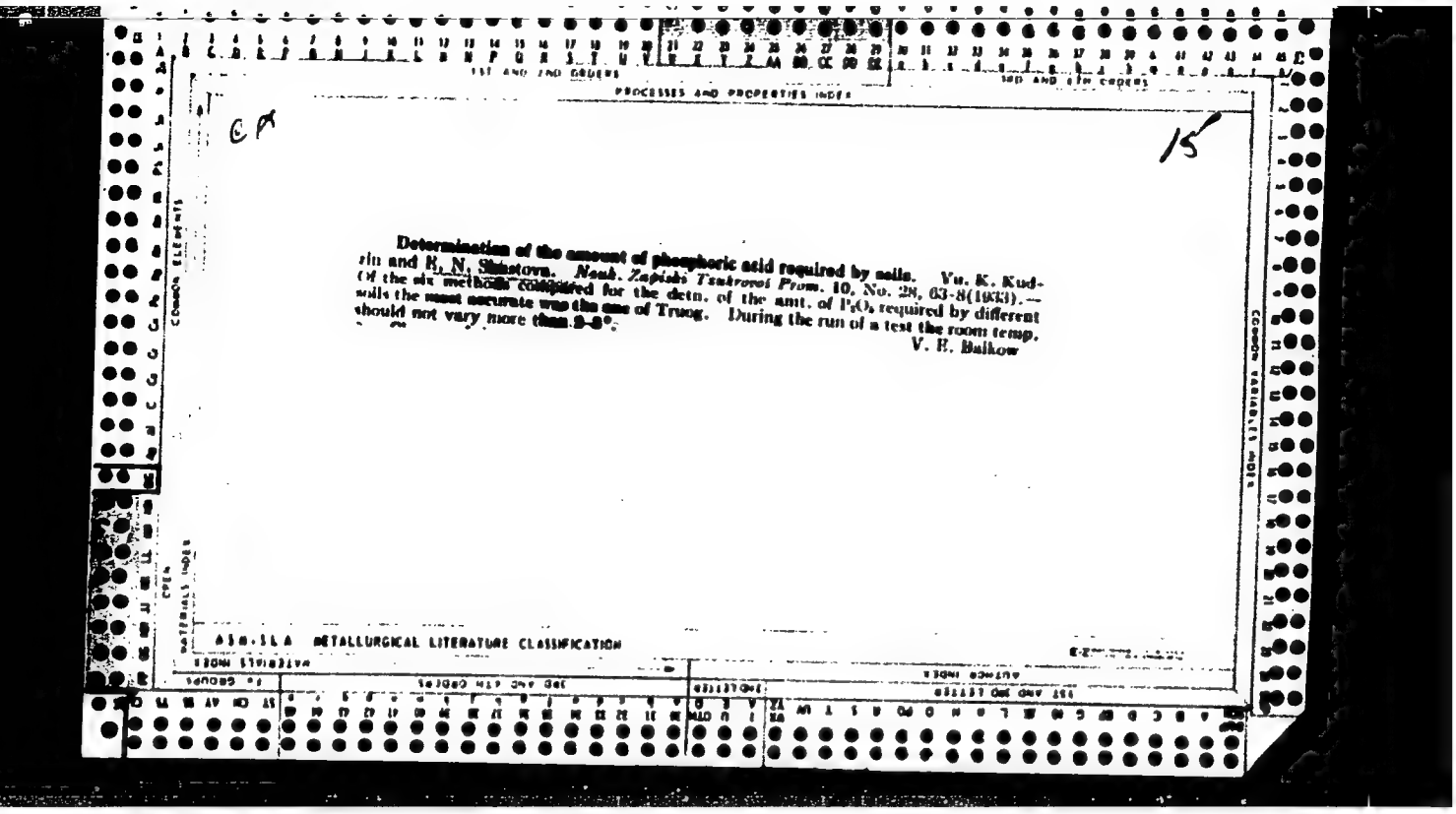
A58-SLA METALLURGICAL LITERATURE CLASSIFICATION

SHUSTOVA, Ye.A.

Studying the dormancy of tree seeds. Uch. zap. Sar. un. 64:139-143 '59. (MIRA 13:9)
(Trees) (Germination)

SHUSTOVA, Ye. A.

Cand Biol Sci - (diss) "Explanation of the causes for slow growth of seeds (fruit) of several tree varieties." /Kazan'/, 1961. 18 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Kazan' Order of Labor Red Banner State Univ imeni V. I. Ul'yanov-Lenin); 180 copies; price: free; (KL, 10-61 sup, 211)

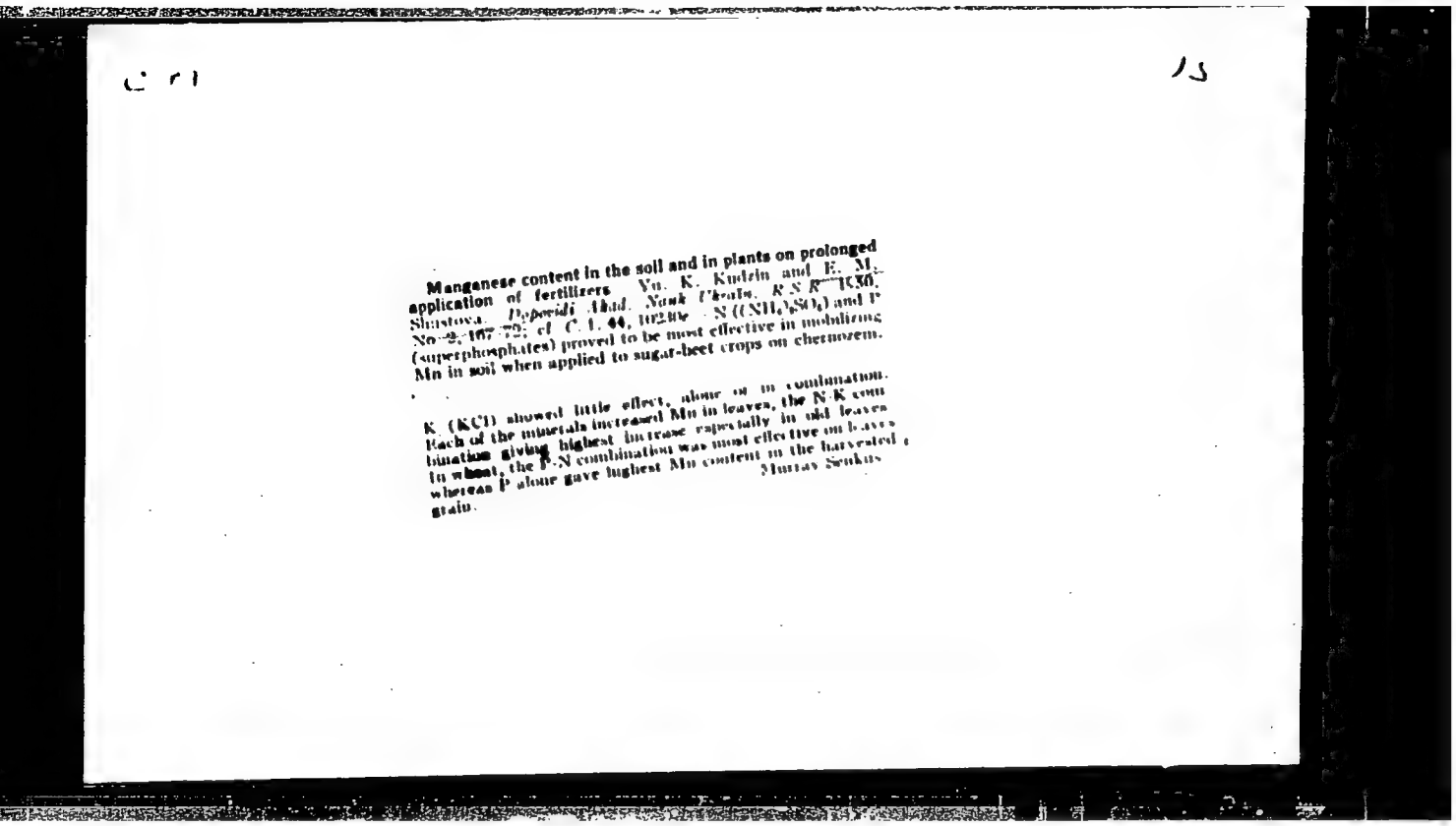


CP

15

Determination of the amount of phosphoric acid required by soils. Yu. K. Kudrin and R. N. Shkatova. *Nauk. Zapiski Tsukrovoi Prom.* 10, No. 28, 63-8(1933).—Of the six methods compared for the detn. of the amt. of P_2O_5 required by different soils the most accurate was the one of Truog. During the run of a test the room temp. should not vary more than 2-3°.

V. F. Bulkow



Manganese content in the soil and in plants on prolonged application of fertilizers Yu. K. Kudzin and E. M. Shistova. *Doklady Akad. Nauk Ukrain. S.S.R.* 1950, No. 2, 107–10; cf. *C. A.* 44, 10286e. $N(NH_4)_2SO_4$ and P (superphosphates) proved to be most effective in mobilizing Mn in soil when applied to sugar-beet crops on chernozem.

K (KCl) showed little effect, alone or in combination. Each of the minerals increased Mn in leaves, the N-K combination giving highest increase especially in old leaves. In wheat, the P-N combination was most effective on leaves whereas P alone gave highest Mn content in the harvested grain. Murray Senkus

SHUSTOVA, Ye. N.

"Conditions of Phosphate and Calcium Nourishment of Sugar Beets During Crop Rotation." Sub 6 Dec 51, All-Union Sci Res Inst of Fertilizers, Agricultural Engineering and Soil Science.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

SHUSTOVA, E.N.

MD

"The influence of a layer system of plowing on several physical and biochemical properties of the soil. E. N. Shustova and Yu. I. Usenko. *Pochvovedenie* 1955, No. 12, 43–51.—The system of layer type of plowing (0–15 cm. is turned over into the furrow, 15–30 cm. is simply shattered and remains in place, and the lower layer, 30–45 cm. is brought up to the surface) causes a rise in nitrate N during the first year as compared with the conventional form of plowing. After 3–4 years the 30–45-cm. layer brought to the surface behaves like the regular plowed layer in terms of nitrification. The original plowed-under 0–15-cm. layer does not lose its nitrifying power. The result is that with this system of plowing the nitrate N rises. J. S. Joffe

L 28529-66 EWP(j)/EWT(m)/EWP(t)/ETI IJP(c) RM/JD/WB/GD

ACC NR: AT6013803 (A) SOURCE CODE: UR/0000/65/000/000/0284/0295

AUTHOR: Rozenfel'd, I. L.; Persiantseva, V. P.; Reyzin, B. L.; Shustova, Z. F.; Gavrish, N. M.

ORG: none

TITLE: Investigation of certain nitrobenzoic amine salts as corrosion inhibitors for ferrous and nonferrous metals

SOURCE: Korroziya metallov i splavov (Corrosion of metals and alloys), no. 2. Moscow, Izd-vo Metallurgiya, 1965, 284-295

TOPIC TAGS: amine salt, corrosion inhibitor, ferrous metal, nonferrous metal

ABSTRACT: The article presents the results of an investigation of the protective properties of certain inhibitors (nitro- and dinitrobenzoates) synthesized at the authors' laboratory; these properties were tested in natural as well as accelerated conditions involving cyclic and continuous exposure to moisture, with the aid of a specially developed device (Persiantseva, V. P., Rozenfel'd, I. L. Zavodskaya laboratoriya, 1958, 24, 7, 282). (The tests under natural conditions simulated the conditions under which metal products are stored in unheated warehouses and lasted for 21 months.) The inhibitors investigated were: hexamethyleneimine meta-nitrobenzoate, hexamethyleneimine ortho-nitrobenzoate, hexamethyleneimine 3,5-dinitrobenzoate, and piperidine 3,5-dinitrobenzoate. The coating of metal surface with

Card 1/2

L 28529-66

ACC NR: AT6013803

an inhibitor was accomplished through adsorption from vapor phase or by washing the specimens in alcohol solutions of the inhibitors with subsequent drying at room temperature. Protective properties were determined according to the time elapsed until the appearance of first signs of corrosion and according to corrosion rate (as determined by gravimetric method). Findings: When applied in the form of alcohol solutions, all the four tested chemicals proved to be effective inhibitors of atmospheric corrosion under conditions simulating storage of metals in unheated warehouses, in industrial districts (where the atmosphere is more contaminated), for not only ferrous metals but also the most widely used nonferrous metals, (Cu and its alloys, Ag, Sn, Al and its alloys, Ni and Cr coatings, and Zn and Cd coatings passivated in a $K_2Cr_2O_7$ solution). These findings should represent a major advance considering that previously the only other known volatile inhibitors used in industry protected only ferrous metals. Orig. art. has: 7 tables and 1 figure.

SUB CODE: 11, 07 / SUBM DATE: 19Jul65/ ORIG REF: 004/ OTH REF: 002

Card 2/2 cc

SHUSTOVSKIY, F. A.

USSR/Medicine (Veterinary) - Tissue Therapy Apr 52

"Experience in the Use of Preparation ASD," F. A. Shustovskiy

"Veterinariya" Vol XXIX, No 4, pp 49-51

Tha activity of ASD was tested by military-veterinary hospitals in various diseases on 138 animals. Two types of ASD were applied intravenously, per os (for intestinal diseases), or externally (for the treatment of wounds). ASD was found to be an extremely effective tissue therapy prepn and stimulant.

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SHUSTOVSKIY, F.A.

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Nikolai Vasil'evich Spesivtsev. Veterinariia 35 no.2:96 F '58. (MIRA 11:2)

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ticks eradiation (Rus))
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(BIOLOGICAL LABORATORIES--APPARATUS AND SUPPLIES)

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"Particular Features in the Multiplication of Toxoplasma in the Central Nervous System and the Formation of Pseudocysts"

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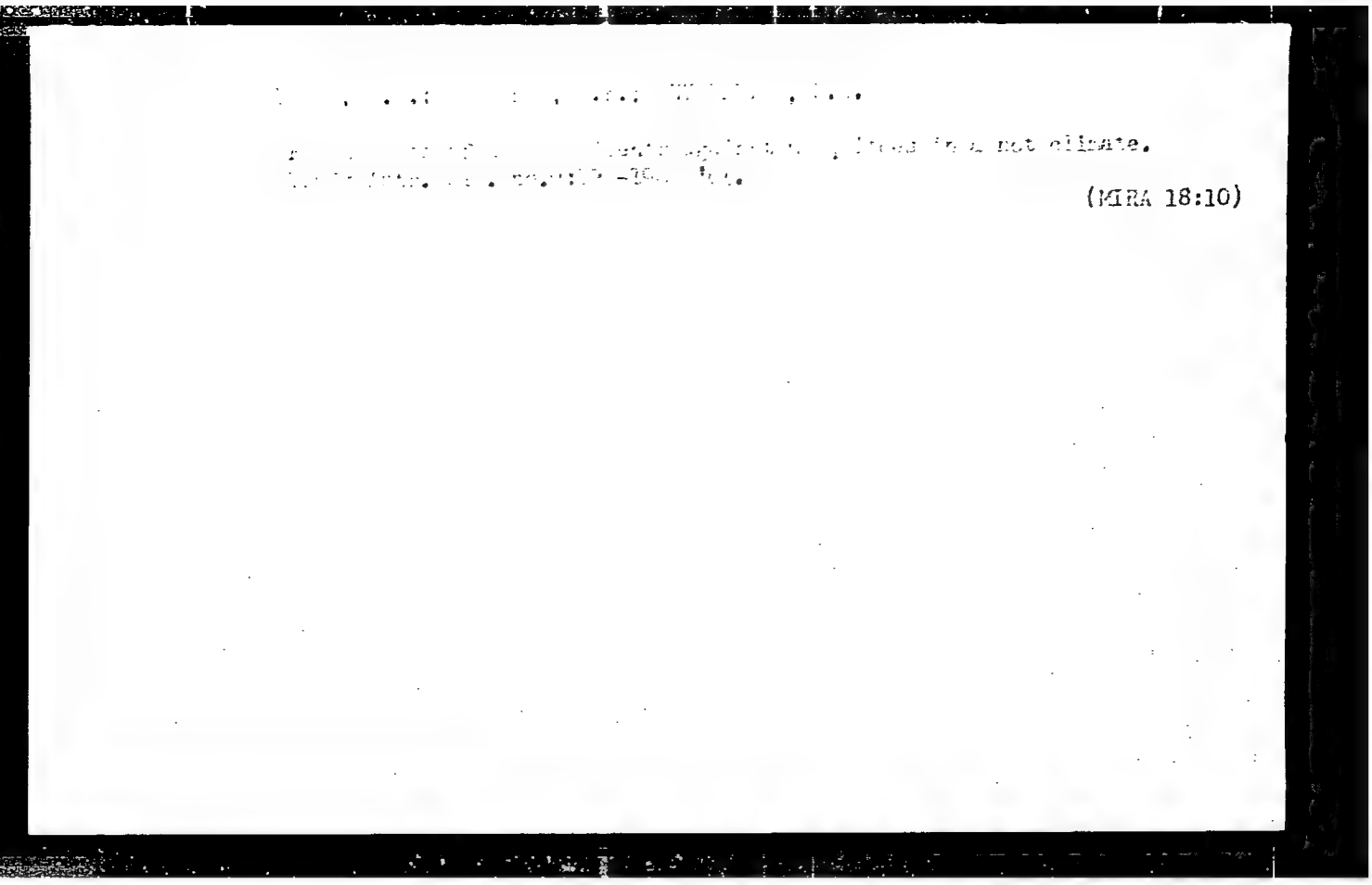
1. Iz otdela patologicheskoy anatomii (zav. - akademik N.N. Anichkov) Instituta eksperimental'noy meditsiny AMN SSSR i kafedry s parazitologiyey imeni akademika Ye.N. Pavlovskogo (nachal'nika - prof. G.S. Pervomayskiy) Voyenno-meditsinskiy ordena Lenina akademii imeni S.M. Kirova.



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Cinophotomicrographic study of Toxoplasma gondii in a peritoneal exudate of white mice. Dokl. AN SSSR 165 no.5:1215-1216 D '65.
(MIRA 19:1)

1. Submitted February 8, 1965.

ACC NR: AP7008115 SOURCE CODE: UR/0020/67/172/004/0885/0888

AUTHOR: Zandberg, E. Ya.; Rasulev, U. Kh.; Shustrov, B. N.

ORG: Physicotechnical Institute im. A. F. Ioffe, Academy of Sciences, SSSR (Fiziko-tekhnicheskiy institut Akademii nauk SSSR)

TITLE: Thermionic emission of positive ions of certain organic compounds from tungsten oxides

SOURCE: AN SSSR. Doklady, v. 172, no. 4, 1967, 885-888

TOPIC TAGS: thermionic emission, tungsten compound

ABSTRACT: Experiments were carried out on thermionic emission from tungsten oxides in a mass spectrometric apparatus in the presence of various organic compounds at 10^{-5} mm Hg. The following compounds produced thermions: diethylamine, phenol, aniline, trimethylhydrazine, acetone peroxide, several amino acids, and also acetic and formic acid. Most attention was devoted to the ionization of the first four compounds. The spectra of thermionic emission from tungsten oxides (at $T \leq 1100°K$) and tungsten (at $T \geq 2000°K$) are tabulated. With the exception of aniline, ions representing products of surface reactions were observed in all cases. The results are in accord with previously advanced hypotheses on the formation of thermions by both catalytic dissociative ionization and formation of "heavy" ions in chemical surface reactions. The temperature dependence of thermionic currents from tungsten oxide

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surfaces was determined; the bell-jar shape of the I = f(T) curves obtained indicated the simultaneous occurrence of ionization and dissociation of the particles on the surface. In the case of aniline, the I = f(T) function was exponential. It is noted in conclusion that the thermal ionization of organic compounds on the surface of solids may be used as a method of studying processes of heterogeneous catalysis. Authors thank N. I. Ionov for discussing the results and I. N. Bakulin for his assistance. The paper was presented by Academician Konstantinov, B. P., 13 Apr 66. Orig. art. has: 3 figures and 1 table.

SUB CODE: 07/ SUBM DATE: 11Apr66/ ORIG REF: 007/ OTH REF: 006
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57-6-29/36

AUTHOR: MALYRIN, B.A., SHUSTROV, B.N.

TITLE: Mass-Spectrometer with Resolving Power of the Order of Several Thousands. (Mass-spektrometry s razreshayushchey siloy v neskol'ko tysyach, Russian)

PERIODICAL: Zhurnal Tekhn. Fiz., 1957, Vol 27, Nr 6, pp 1347 - 1356 (U.S.S.R.)

ABSTRACT: It is shown that a pulse-resonance-mass-spectrometer can be used as an analytical device for gas-analytical purposes with a resolving power of several thousands. In order to realize this possibility the light intensity and sensitivity of the device were considerably increased 1) by the method of collecting ions in the source, 2) by the application of a specially developed generator of millimicroseconds-pulses with an increased sequence of frequencies, 3) by clarifying the basic causes of the occurrence of a remaining current and elaboration of a measuring system for its removal. With respect to the production and adjustment the device developed is more simple than those with double focussing and with a non-uniform field. One of the advantages offered by the device is the possibility of regulating the resolving power without effecting any changes in the vacuum chamber. This is possible by selecting the suitable number of revolutions by the frequency transformation of generator pulses.

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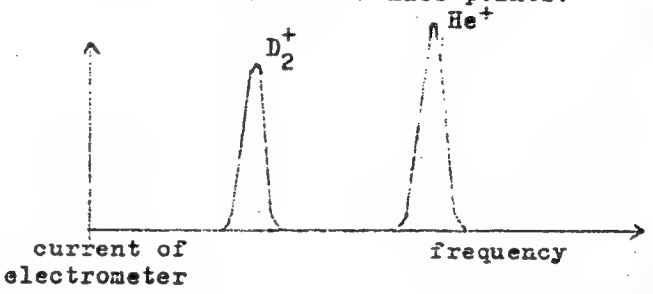
Mass-Spectrometer with Resolving Power of the Order of Several Thousands. 57-6-29/36

In the case of a reduction of the resolving power the light intensity of the device is increased. An important property of the device when used for purposes of analyses is the lack of "tails" or "trains" on the basis of the curves of mass points. (With 8 illustrations and 6 Slavic references)



ASSOCIATION: LFTI of the Academy of Science of the U.S.S.R.
PRESENTED BY:
SUBMITTED: 3.3.1957
AVAILABLE: Library of Congress

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